

IN THE CLAIMS:

Please AMEND claim 1, as follows. For the Examiner's convenience, all claims currently pending in this application have been reproduced below:

1. (Currently Amended) A projection exposure apparatus, comprising:

an illumination optical system for illuminating a pattern of a reticle with laser light from a continuous emission excimer laser;

a projection optical system for projecting the illuminated pattern onto a substrate;

adjusting means for adjusting an optical characteristic of said projection optical system in accordance with a change in wavelength of the laser; and

wavelength stabilizing means for stabilizing the wavelength of the laser light when the adjustment of the optical characteristic of said projection optical system by said adjusting means is insufficient, said wavelength stabilizing means comprising a piezoelectric device, wherein the wavelength of the laser light is adjusted by driving the piezoelectric device.

2. (Original) An apparatus according to Claim 1, wherein said adjusting means includes correcting means for correcting a change in optical characteristic of said projection optical system due to a change in wavelength of the laser light.

3. (Original) An apparatus according to Claim 1, wherein said adjusting means includes detecting means for detecting the wavelength of the laser light.

4. (Original) An apparatus according to Claim 1, wherein said adjusting means operates to adjust the optical characteristic of said projection optical system by (i) moving at least one of a reticle, a wafer and one or more lenses of said projection optical system in an optical axis direction of said projection optical system, (ii) tilting at least one of the reticle, the wafer and one or more lenses of said projection optical system, (iii) decentering one or more lenses of said projection optical system, or (iv) changing a pressure of a closed space between lenses.

5. (Previously Presented) An apparatus according to Claim 1, further comprising driving means for scanningly moving the reticle and the substrate, wherein said illumination optical system illuminates the reticle with slit-like light of a rectangular or an arcuate shape.

6. (Previously Presented) An apparatus according to Claim 1, wherein said apparatus is adapted for formation of an image having a linewidth of 0.13 micron, and wherein a half bandwidth of a wavelength spectrum of the laser light is not greater than 0.1 pm.

7. (Previously Presented) An apparatus according to Claim 1, wherein said apparatus is adapted for formation of an image having a linewidth of 0.09 micron, and wherein a half bandwidth of a wavelength spectrum of the laser light is not greater than 0.08 pm.

8. (Previously Presented) An apparatus according to Claim 1, wherein said excimer laser is an ArF excimer laser, and wherein said projection optical system comprises a lens system substantially constituted by SiO₂.

9. (Previously Presented) An apparatus according to Claim 1, wherein said excimer laser is an F₂ excimer laser, and wherein said projection optical system comprises a lens system substantially constituted by a material selected from the group consisting of CaF₂, BaF₂ and MgF₂.

10. (Previously Presented) An apparatus according to Claim 8, wherein said lens system includes lens elements of a number of at least ten, and wherein a first one or a first two of said lens elements in an order from the substrate side are made of a material selected from the group consisting essentially of one of CaF₂, BaF₂ and MgF₂.

11. (Original) A device manufacturing method, comprising the steps of:
 exposing a substrate with a pattern by use of a projection exposure apparatus as recited in Claim 1; and
 developing the exposed substrate.

12-13. (Canceled)